

Listing of Claims:

1. (Previously Presented) A Softswitch device for a Next Generation Network, characterized in that said Softswitch device implements an intelligent network service in the Next Generation Network, and said Softswitch device includes:

5 a network adaptive device located at a bottom layer of the Softswitch device, the network adaptive device for implementing communication between the Softswitch device and other devices in said Next Generation Network, as well as receiving call requests;

a call server in a higher layer of the network adaptive device, the call server for determining whether the call received by said network adaptive device is a common call or a call of the intelligent network and processing the common call; and

10 an Intelligent Network Application Part (INAP), Customised Applications for Mobile network Enhanced Logic Application Part (CAP) or Mobile Application Part (MAP) adapter in a higher layer of the call server, the adapter for responding to the call of the intelligent network and encoding or decoding an INAP message.

2. (Previously Presented) The Softswitch device according to claim 1, characterized in that said Softswitch device further includes: a resource manager for managing intelligent peripherals, performing audio interaction with a user through the call server, and transmitting the user input data to said adapter.

3. (Previously Presented) The Softswitch device according to claim 1, characterized in that said Softswitch device further includes:

a signaling transmitting adapter for transferring signaling data through IP packets; and

5 a media gateway control adapter for transmitting data between said Softswitch device and one or more media gateways in said network.

4. (Previously Presented) The Softswitch device according to claim 3, characterized in that the media gateway control adapter uses one or more of the following protocols: H.323, MGCP, H.248 and SIP.

5. (Previously Presented) The Softswitch device according to claim 1, characterized in that said network adaptive device includes: an INAP/TCP interface for directly transmitting an expanded INAP encoded message through TCP/IP protocol.

6. (Currently Amended) A system for implementing an intelligent network, the system including a Softswitch device, at least one Service Control Point (SCP) and an IP network, the Softswitch device including a network adaptive device ~~device~~ device, a call server and an Intelligent Network Application Part (INAP) adapter, wherein;

5 the network adaptive device is located at a bottom layer of the Softswitch device, the network adaptive device is for implementing communication between the Softswitch device and other devices in said network, as well as receiving the call request;

10 the call server is in a higher layer of the network adaptive device, the call server is for determining whether a call received by said network adaptive device is a common call or a call of the intelligent network and processing the common call;

the INAP adapter is in a higher layer of the call server, the INAP adapter is for responding to the call of the intelligent network and encoding or decoding the INAP message;

the at least one SCP is for executing intelligent service logic and producing INAP messages; and

15 the IP network is for connecting said Softswitch device and the SCP.

7. (Previously Presented) The system according to claim 6, characterized in that said system further includes: intelligent peripherals for providing special resources required by the intelligent network services; and said Softswitch device further includes: a resource manager for managing said intelligent peripherals, performing audio interaction with a user through the call
5 server, and transmitting the user input data to said INAP adapter.

8. (Previously Presented) The system according to claim 6, characterized in that said system further includes:

a signaling gateway, connecting to said IP network at its one side and to a Public Switched Telephone Network (PSTN) at another side, for transferring signaling data between said IP
5 network and said PSTN;

a media gateway, connecting to said IP network at its one side and to a PSTN at another side, for transferring media data between said IP network and said PSTN;

said Softswitch device further including:

a signaling transmitting adapter for transferring signaling data through IP packets; and

10 a media gateway control adapter for transmitting data between said Softswitch device and one or more media gateways in said network.

9. (Currently Amended) A method for a PSTN telephone to access into an intelligent network service in a next generation network, wherein there is at least one SCP in said next generation network for executing the intelligent service logics, said method including:

issuing a call request from said PSTN telephone through dialing an accessing code;

5 a network adaptive device in a Softswitch device transforming said call request issued by said PSTN telephone into a protocol format suitable for the next generation network;

a call server in the Softswitch device determining whether said call request is an intelligent network service provided by the SCP or not;

10 if said call request is an intelligent network service provided by the SCP, an Intelligent Network Application Part (INAP) adapter in the Softswitch device encoding said call request into an INAP message and transferring the message to said SCP; and

responding to said INAP message and processing said call request by said SCP.

10. (Previously Presented) The method according to claim 9, characterized in that said step for transforming the call request includes: transforming the call request in SS7 signaling format into a format suitable for transmitting on the IP network.

11. (Previously Presented) The method according to claim 10, characterized in that said step for transforming the call request includes: transforming the call request in SS7 signaling format into the SIGTRAN protocol format or H.248 protocol format.

12. (Previously Presented) The method according to claim 9, characterized in that said step for determining includes: searching a database that stores the accessing codes of the intelligent network, determining whether the accessing code of the call request of said PSTN telephone is an accessing code of the intelligent network.

13. (Previously Presented) A method for a telephone in a next generation network to access into an intelligent network service in a PSTN network, wherein there is at least one SCP in said PSTN network for executing intelligent service logic, said method including:

5 issuing a call request from said telephone in said next generation network through dialing an accessing code;

 a network adaptive device in a Softswitch device determining whether said call request is an intelligent network service provided by the SCP or not;

 if said call request is an intelligent network service provided by the SCP, a call server in the Softswitch device encoding said call request into an INAP message;

10 an Intelligent Network Application Part (INAP) in the Softswitch device transforming said INAP message into a format suitable for the PSTN network and transferring said INAP message to said SCP; and

 responding to said INAP message and processing said call request by said SCP.

14. (Previously Presented) The method according to claim 13, characterized in that said step for determining includes: searching a database that stores the accessing codes of the intelligent network, determining whether the accessing code of the call request of said telephone is an accessing code of the intelligent network.

15. (Previously Presented) The method according to claim 13, characterized in that said step for transforming includes: transforming the INAP message data in IP network format into a format suitable for the PSTN network.

16. (Previously Presented) The method according to claim 13, characterized in that said step for transforming includes: transforming the INAP message data in the SIGTRAN protocol format or H.248 protocol format into the SS7 signaling format.

17. (Previously Presented) A method for a telephone in a next generation network to access into an intelligent network service in a PSTN network, wherein there is at least one SCP in said PSTN network for executing intelligent service logic, said method including:

5 issuing a call request from said telephone in the next generation network through dialing an accessing code;

 a network adaptive device in a Softswitch device transforming said call request into a format suitable for the PSTN network and transferring it to the PSTN network;

 a call server in the Softswitch device determining whether said call request is an intelligent network service provided by said SCP or not;

10 if said call request is an intelligent network service provided by the SCP, an Intelligent Network Application Part (INAP) in the Softswitch device encoding said call request into an INAP message and transferring said INAP message to said SCP; and

 responding said INAP message and processing said call request by said SCP.

18. (Previously Presented) The method according to claim 17, characterized in that said step for determining includes: searching a database that stores the accessing codes of the intelligent network, determining whether the accessing code of the call request of said telephone is an accessing code of the intelligent network.

19. (Previously Presented) The method according to claim 17, characterized in that said step for transforming includes: transforming the call request in IP network format into a format suitable for the PSTN network.

20. (Previously Presented) The method according to claim 19, characterized in that said step for transforming includes: transforming the call request in the SIGTRAN protocol format or H.248 protocol format into the SS7 signaling format.